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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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26252	7590	10/26/2005	EXAMINER	
KELLY LOWRY & KELLEY, LLP			CHANG, CHING	
6320 CANOGA AVENUE			ART UNIT	
SUITE 1650			PAPER NUMBER	
WOODLAND HILLS, CA 91367			3748	

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,113

Applicant(s)

GORACY, GRANT

Examiner

Ching Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-27 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 11 is/are rejected.
- 7) ☒ Claim(s) 6-10 and 12-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

This Office Action is in response to the Remarks/Arguments filed on 03/18/2005.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. ***Claims 1-5, and 11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Methley et al. (US Patent 6,725,817).***

Methley discloses an adjustable cam shaft (10), comprising, an elongated shaft (12, 14); a first cam lobe (16) carried by the shaft; and a second cam lobe (18) carried by the shaft; wherein the first and second cam lobes are selectively rotatable relative to one another (See ABSTRACT; Col. 1, line 56 through line 61; through driven members 40 and 38; through driven members 142 and 138) and selectively locked in place relative to one another, whereby a displacement angle between the cam lobes can be selectively adjusted (See Col. 2, line 51 through Col. 3, line 9; Col. 4, line 32 through Col. 5, line 24), including a drive/timing gear assembly (32, 40, 38; 132, 138, 142) carried by the shaft and associated with the first and second cam lobes; wherein the drive/timing gear assembly includes a gear (32; 132) and a hub (38, 40; 138) fastened

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to one another; including indicia (through Fig. 8) associated with each of the first and second cam lobes for determining the displacement angle of the cam lobes; wherein the elongated shaft comprises first and second shaft sections, the first cam lobe extending from the first shaft section, and the second cam lobe extending from the second shaft section, and wherein the shaft sections are rotatably associated with one another and selectively locked in place relative to one another.

Regarding the rejection on claim 4, Methley further discloses “ the invention permits a single drive mechanism to be used for both camshafts, thereby providing a significant cost saving. The invention also offers a significant reduction in the size of the mechanism...within the space normally occupied by a conventional cam drive pulley or sprocket...the engine having a camshaft assembly in which the first set of cams is mounted on an outer tube and the second set of cams is fast in rotation with an inner shaft mounted concentrically within and rotatable relative to the outer tube (See Col. 1, line 49 through line 61), accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the assembled camshaft taught by Methley, to actuate either one of the engine intake valve or the exhaust valve through either one of the said cam lobes, since the use thereof would provide a more compact and cost effective engine.

Allowable Subject Matter

3. Claims 16-20, and 21-27 are allowed.

4. Claims 6-10, and 12-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed on 03/18/2005 have been fully considered but they are not persuasive.

More specifically, regarding the Attorney's contention "Methley fails to disclose that the first and second cam lobes are selectively rotatable relative to one another and selectively locked in place relative to one another, whereby a displacement angle between the cam lobes can be selectively adjusted. ", and "reference number 32 actually refers to a drive member which does not even appear to be carried by the outer sleeve or tube 12 " (See Page 8, Attorney's Remarks/Arguments), the Examiner disagrees. As a matter of fact, the Methley reference discloses "two driven members 38 and 40, each connectable for rotation with a respective one of the two sets of cams....each of the driven members 38 and 40 to be varied relative to the drive member 32 independently of the other driven member " (See ABSTRACT), "the engine having a camshaft assembly in which the first set of cams is mounted on an outer tube and the second set of cams is fast in rotation with an inner shaft mounted concentrically within and rotatable relative to the outer tube (See Col. 1, line 57 through line 61), "The camshaft assembly comprises an inner shaft 14 surrounded by an outer sleeve or tube 14 which can rotate relative to the shaft 14...One set of cams 16 is directly connected to the outer tube 12. A second set of cams 18 is freely journalled on the outer tube 12 and

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is connected to the inner shaft 14 by pins " (See Col. 2, line 53 through line 59), " the first driven member 38 is keyed in for rotation with the inner shaft 14 of the assembled camshaft while the second driven member 40 is connected to the outer tube 12... " (See Col. 3, line 5 through line 8), " The first driven member 138 has the form of a hub that is secured by means of a bolt 139 (see FIG. 4) for rotation with the inner shaft 14 of the assembled camshaft 10....The second driven member 142 isfor rotation with the outer tube 12 of the assembled camshaft 10 " (See Col. 3, line 58 through line 66), " The table of FIG. 8 shows the necessary connections toto achieve the independent control of the phase of the two driven members 138 and 142 " (See Col. 4, line 34 through line 37), " As can be seen ...of FIG. 8, any one or both of driven members 138 and 142 can be moved in either direction relative to the drive member 132 " (See Col. 4, line 48 through line 50), and " To advance both driven members at the same time, port C is locked, thereby locking the phase of the driven members 138 and 142 relative to one another " (See Col. 5, line 5 through line 6), accordingly, the Examiner deems that Mehtley reference teaches the first (16) and second cam (18) lobes are selectively rotatable relative to one another and selectively locked in place relative to one another, whereby a displacement angle between the cam lobes can be selectively adjusted, and including a drive/timing gear assembly (32, 40, 38; 132, 138, 142) carried by the shaft and associated with the first and second cam lobes.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ching Chang whose telephone number is (571)272-4857. The examiner can normally be reached on M-Th, 7:00 AM -5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571)272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Patent Examiner



Ching Chang



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